ANDREW KALOTAY ASSOCIATES, INC.

The Case for the Ratchet Mortgage

Mortgage Contract Design Conference

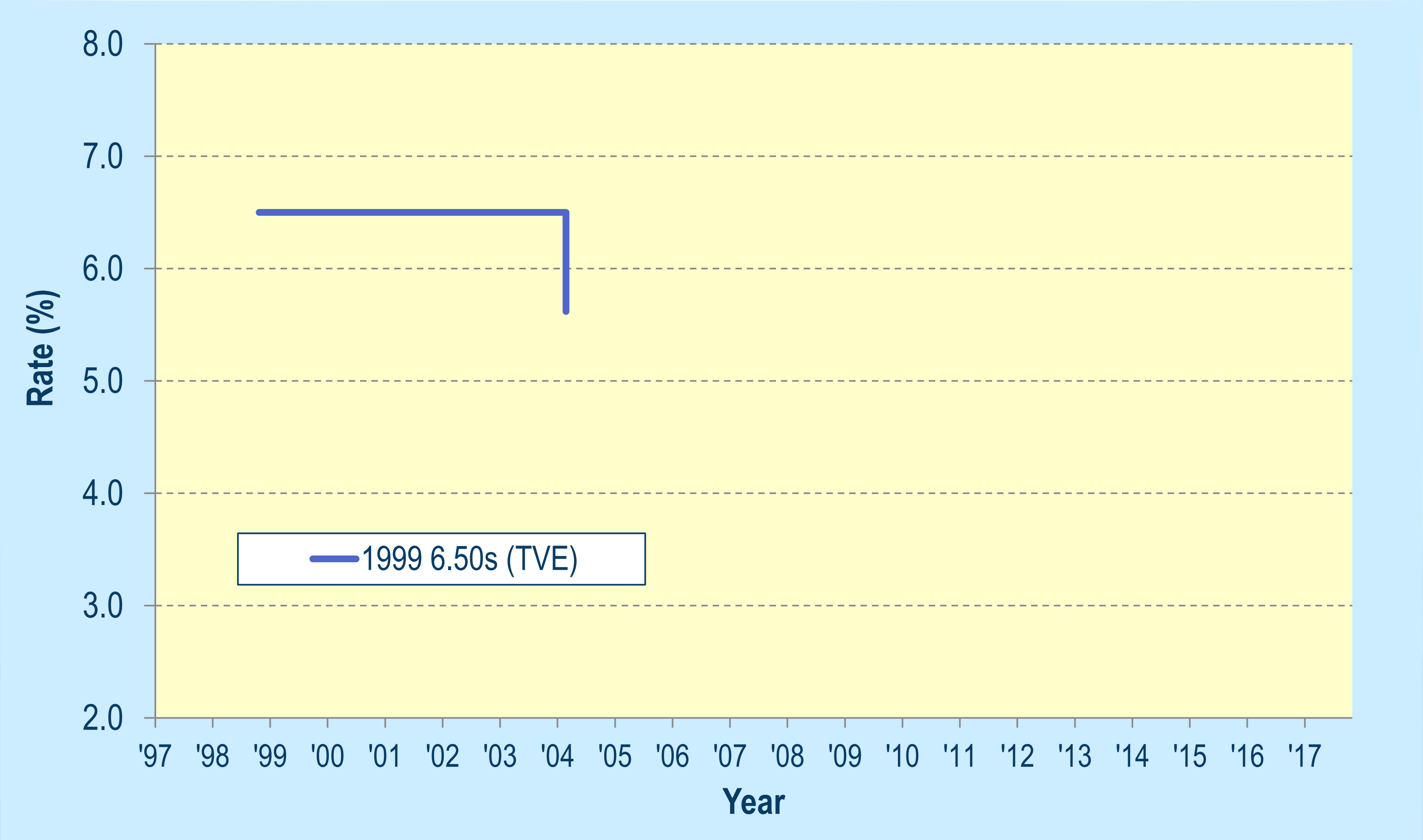
FEDERAL RESERVE BANK OF NEW YORK • INCORPORATED MAY 18, 1914 •

May 21, 2015

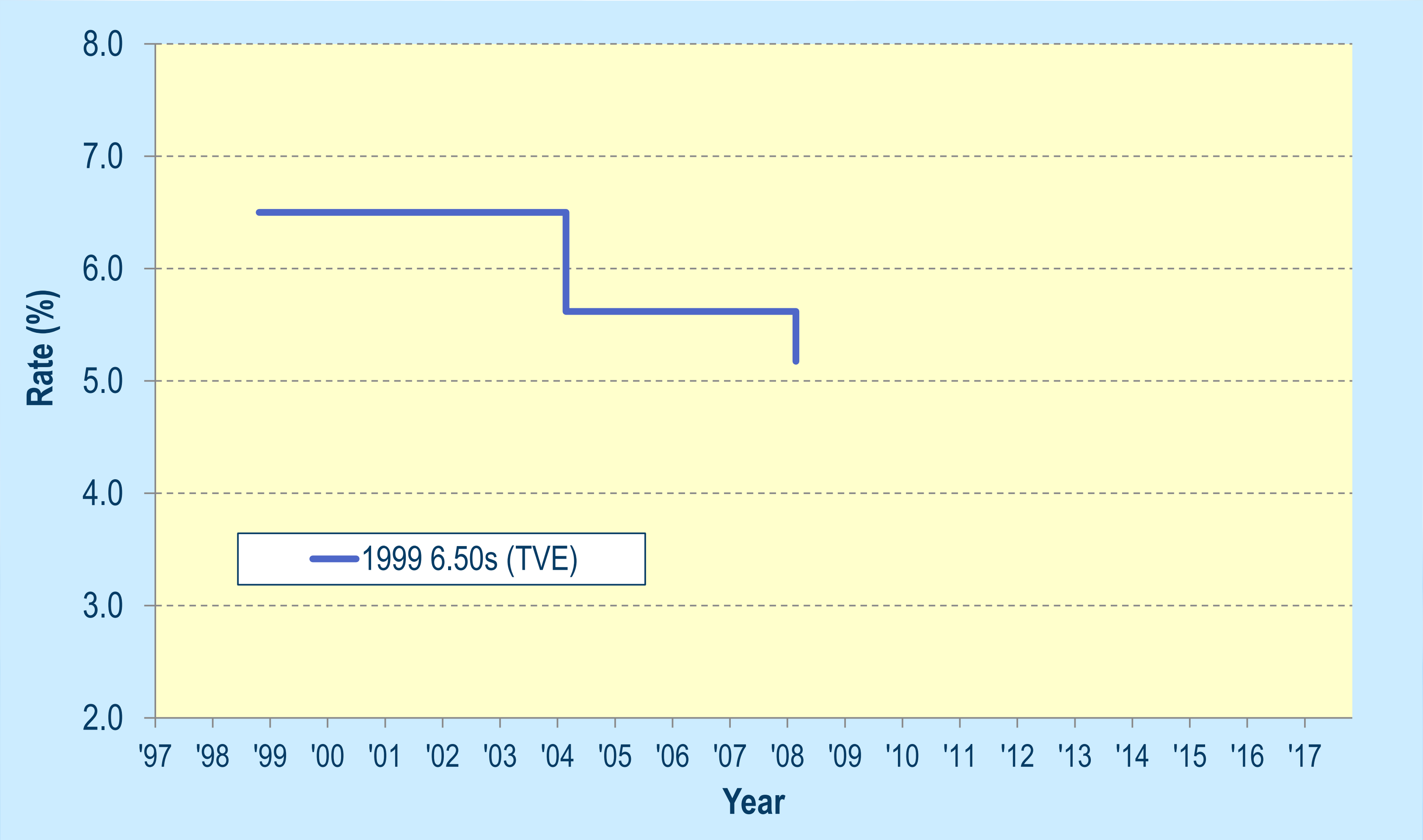
The TVA Ratchet Bonds
Coupon Floats Only Downward

	6.75s of 2028 (TVC)	**6.50s of 2029 (TVE)**
Date	June 1998	May 1999
Size	$575MM	$525MM
Lockout	5 years	5 years
Reset Frequency	Annual	Annual
Reset Formula	30-Yr CMT + 94 bps	30-Yr CMT + 84 bps

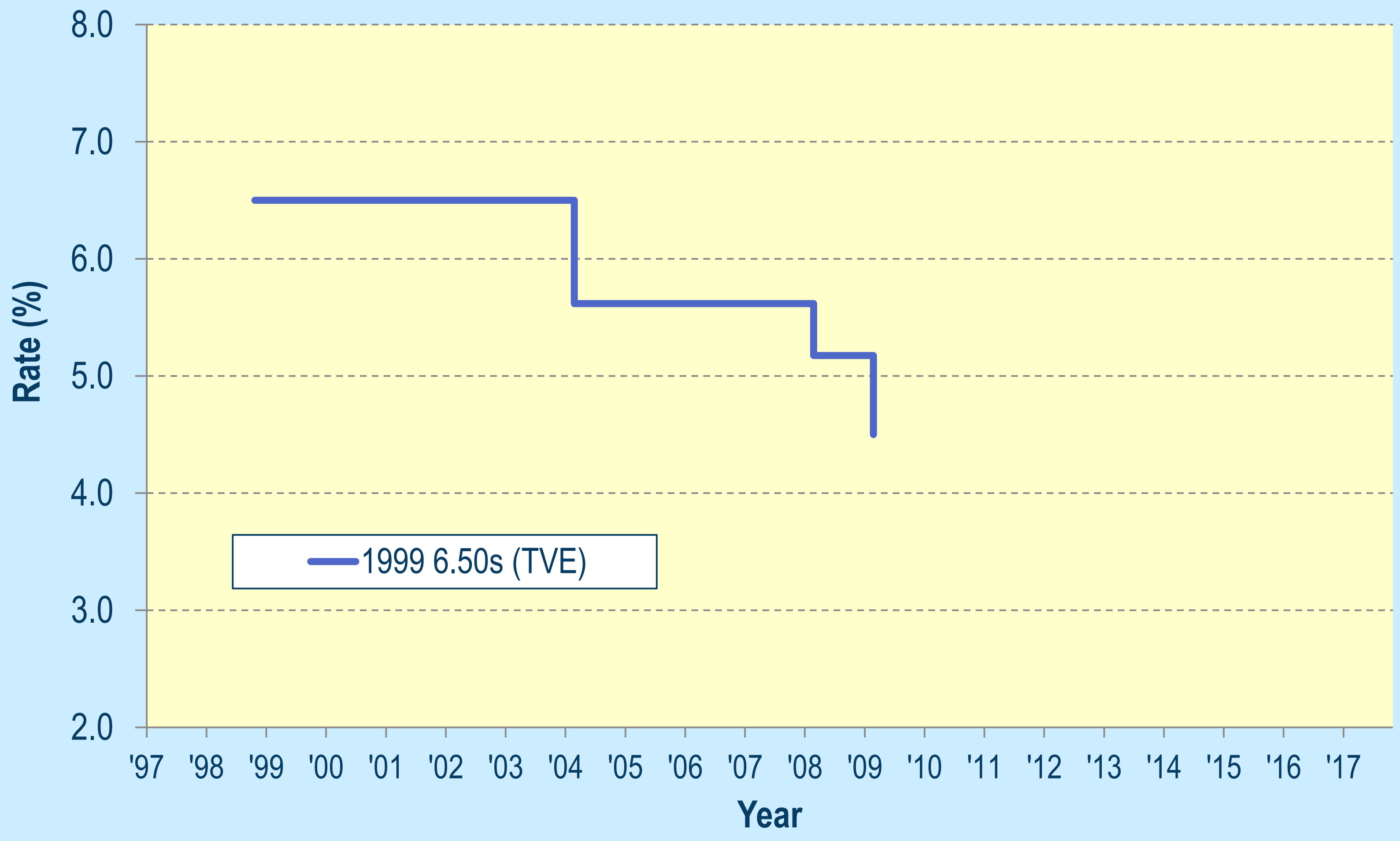
Tracking the Rate Resets



Tracking the Rate Resets



Tracking the Rate Resets



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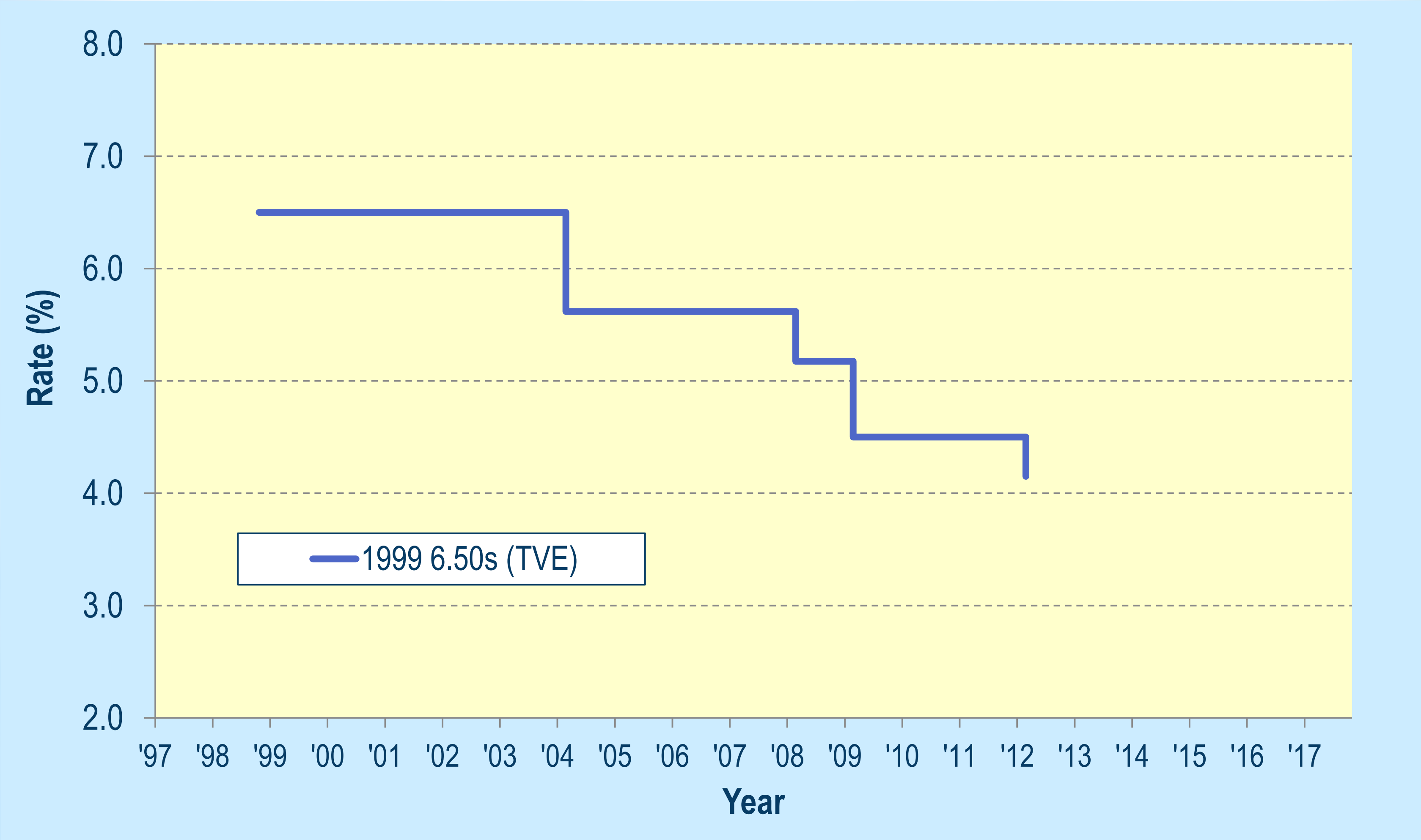

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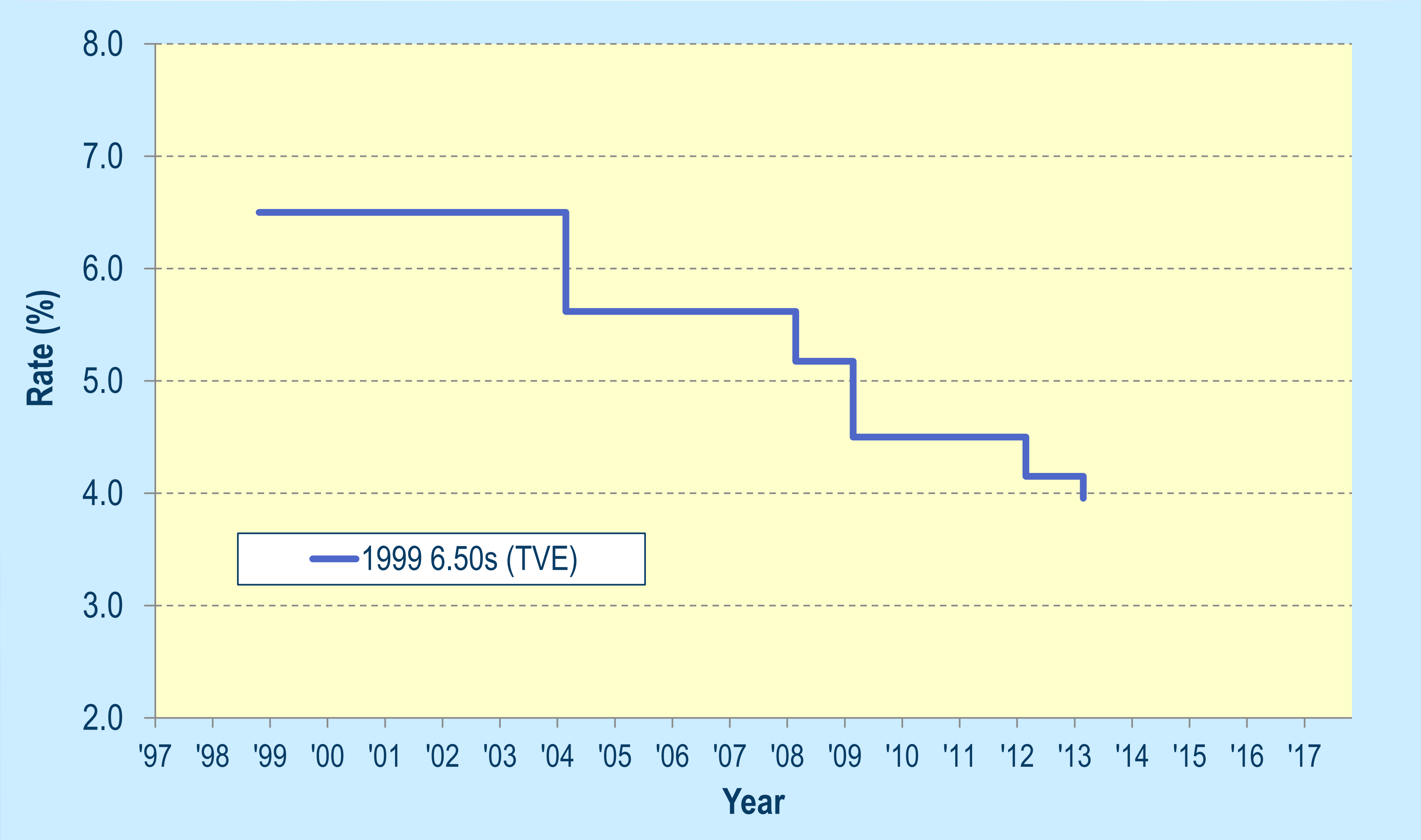

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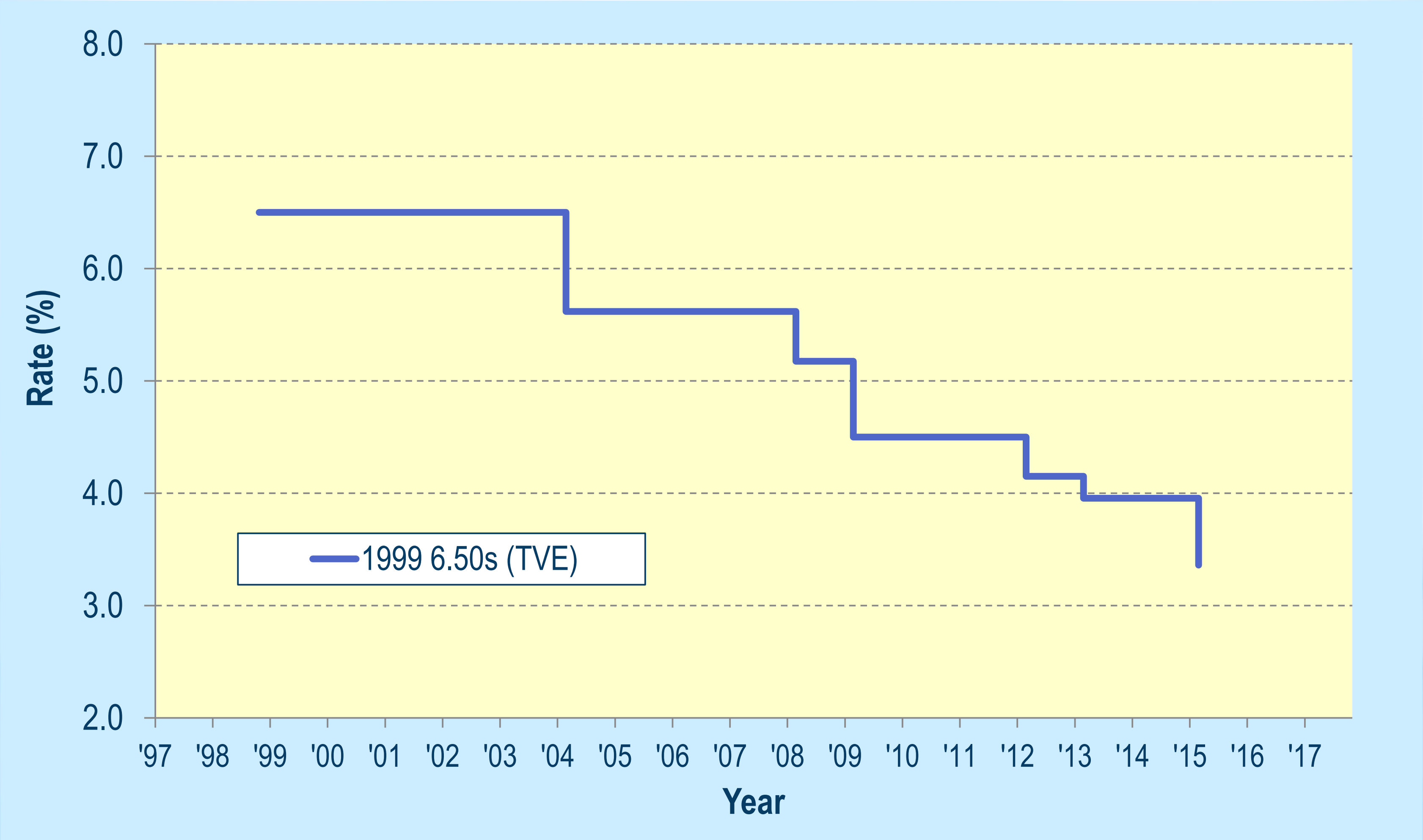

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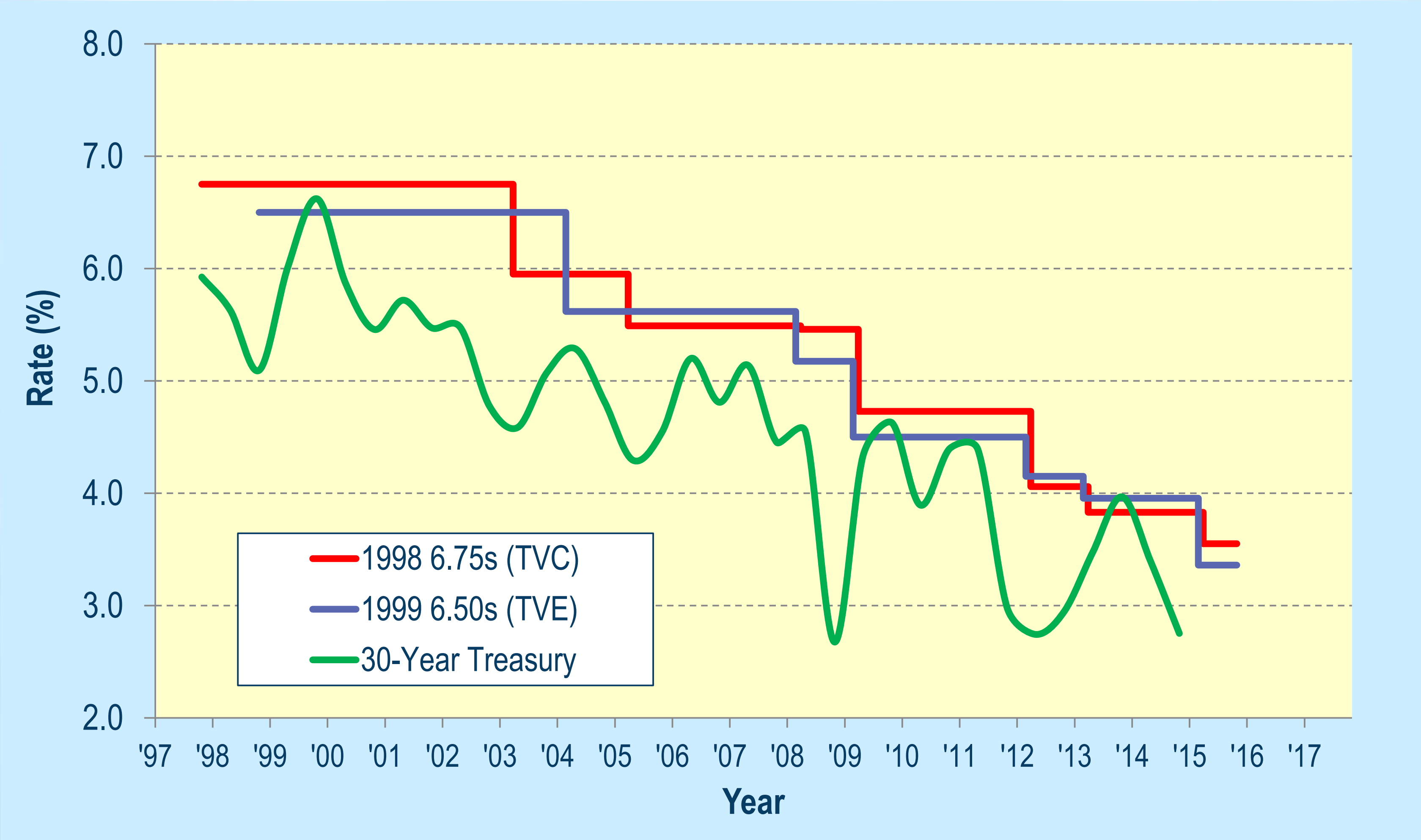

Hot off the Press

TVA

NEWS RELEASE

April 29, 2015

TVA To Reset 1998 Series D (TVC) PARRS Power Bonds

The interest rate on the Tennessee Valley Authority 1998 Series D Putable Automatic Rate Reset Securities bonds, which are traded on the New York Stock Exchange under the symbol “TVC”, will be reset from 3.830 percent to 3.550 percent on June 1, 2015.

Introducing the Ratchet Mortgage*
A One-Way ARM

- Rate tied to a published index
  - Say 10-year Treasury + 170 bps
- Ratchets only downward
  - If reset formula results in rate exceeding current rate, then current rate prevails
- Resets periodically
  - Or when formula crosses pre-specified threshold (say 50 bps decline)

**Co-invented by Bert Ely & Andrew Kalotay*

How the Ratchet Mortgage Benefits Homeowners

Automatic savings when rates decline

- No agonizing over when to refinance

No refinancing costs

- Refi costs can add up in conventional mortgages

Initial rate only slightly higher than that of conventional fixed-rate mortgage

- Fair rate of floater with period cap of 0 bps can be determined by standard fixed income analytics

Low-Income Borrowers Not Subject to Refi Credit Check

Rate reduction is automatic

Consumer-friendly attributes should appeal to Congress and regulators

How Lenders Benefit

- Longer and more predictable profit stream
  - Higher escrow income; lower credit losses as mortgages age
- Less origination volatility
  - Reduced need for ramp-up during refinancing booms and for hedging mortgage servicing rights
  - Fewer refis lessen compliance burden
- Customer ‘stickiness’
  - Facilitates cross-selling other banking products
- Can be funded with ratchet bonds
  - Same index, lower spread locks in profit

In Summary

Fixed rate mortgages are problematic

- Borrowers:
  - Transaction costs from frequent refinancings add up
  - Declining credit precludes benefiting from lower rates
- Lenders:
  - Refinancings cause earnings volatility
  - Customer migration is common

Solution: Ratchet Mortgages

- Borrowers:
  - Refis automatic, credit-check not required
- Lenders:
  - More durable customer relationships, more cross-selling opportunities, lower origination volatility, stable earnings